

**Amendments to the Specification**

Please replace the paragraph at page 5, lines 1 through 16 with the following amended paragraph:

In one embodiment, the invention is a method of recording at least two multiplexed holograms. The method comprises the steps of reflecting either an object beam or a reference beam from at least one portion of a first aspherical reflecting surface and rotating at least one of a portion of the reference beam impinging on a recording media at the selected storage location and a portion of the object beam impinging on the recording media at the selected storage location through a selected azimuthal angle about an axis that lies in the plane formed by optical axes of the portions of the object beam and the reference beam impinging on the recording media while preserving an angle between optical paths of the portions of the object beam and the reference beam impinging on the recording media. The axis of rotation passes through ~~a plane defined by the intersection of the object beam and the reference beam in the recording media~~ the selected storage location. The object beam and the reference beam can be generated by a coherent light source. The object beam and the reference beam intersect and form an interference pattern at ~~a plane defined by the intersection of the object and reference beams at a~~ the selected storage location in a recording media, thereby recording a first and, after rotation, a second hologram at the selected storage location.

Please replace the paragraph at page 11, lines 23 through 29 with the following amended paragraph:

Object beam optics are also provided which direct the object beam, produced by using the pattern encoder, to the selected storage location in the medium. During recording, the object beam and the reference beam intersect and substantially overlap in said storage location. This intersection of the mutually coherent reference and the object beams at the selected location in the recording media forms an interference pattern and defines a ~~plane~~ volume of intersection.